3.600 St. Louis County
West L : Sanitary Landfill

RECEIVED
SEP 15 1980
SOLID WASTE MANAGEMENT PROGRAM

MEMORANDUM

Date: September 4, 1980

To: Art Groner, Central Office, Solid Waste Management Program

From: Mike Duvall, St. Louis Regional Office MD

Subject: EPA Inventory
West Lake Sanitary Landfill

Site: West Lake CU2
ID #MBD079900932
Break: 17.8
Other:
9-4-80
CRM

Explanation of decisions:

Surface water

Site has leachate collection wells. Leachate generated is handled very well. Soon a system will be on-line which will pre-treat all leachate produced for discharge to sanitary trunk sewers.

There are some storm water drainage ditches around the landfill. A general NPDES permit technically required here.

Ground water

Ranked as high priority since groundwater table is tied to Missouri River alluvium.

Site has monitoring wells. Attached is a copy of location map. Also attached are copies of monitoring data we have on file. I have jotted down the MCL's from the guidance manual alongside the values on the reports. I believe that wells #37A, 38 & 39 are considered upgradient. A review of the data shows that the MCL's are exceeded at virtually all wells for the parameters TDS, iron and manganese. I see no increasing trend downgradient for Fe, but one is noticeable for TDS and Mn to some extent. At the well farthest downgradient, #41, the jump in TDS is more obvious, and here the chloride value is exceeded for the first time. Based upon this trend, it seems that some contamination is occurring. I have therefore listed this facility in non-compliance with the groundwater criteria. You may want to evaluate this further with the additional sampling data you may have in your files. I would finally recommend that we have someone from the Division of Geology re-evaluate the well placement around the site at large sometime, to determine whether we have representative upgradient wells that reflect true natural groundwater characteristics. I am concerned about this because of the landfill expansion that has occurred since original placement of the wells.

MD/dak

enclosures

40241271
SUPERFUND RECORDS

MISSOURI DEPARTMENT OF NATURAL RESOURCES
P.O. Box 1368 Jefferson City, Missouri 65102 (314) 751-3241

Joseph P. Teasdale Governor
Fred A. Lafser Director

Division of Environmental Quality
Robert J. Schreiber Director

DNR 0152

MISSOURI DEPARTMENT OF NATURAL RESOURCES
DIVISION OF ENVIRONMENTAL QUALITY
LABORATORY SERVICES PROGRAM

AUG 15 1980

REPORT OF SAMPLE ANALYSIS
LANDFILL MONITORING PROJECT

NAME OF FACILITY *West Lakes Wells*

SAMPLES COLLECTED BY *Randy Crawford* DATE(S) *2-20-80*

NOTE:

SAMPLE DESCRIPTION	*Well #38*	*Well #39*	*Well #37A*
DATE COLLECTED	*2-20-80*	*2-20-80*	*2-20-80*
SAMPLE NUMBER	*80-6606*	*80-6607*	*80-6608*
pH Units 6.5 - 8.5	7.0	6.9	7.2
Specific Cond. (umhos/cm @ 25° C)	950	1050	800
Milligrams per liter			
BOD	5	< 4	
COD	44	< 5	36.8
NH_3 as N	.05	.16	.35
NO_3+NO_2 as N (10)	< .05	< .05	
Total P	< .02	.02	
Total Sulfide	.55	.55	
TOC	22.0	13.0	
Total Cyanide	< 10	< 10	
Non-Filterable Residue (SS)	23.0	37.5	
Filterable Residue (TDS) 500	(692)	(792)	
Alkalinity as $CaCO_3$	362	350	
Fluoride 2.4	.23	.17	
Chloride 250	15.14	34.38	
Sulfate 250			
Hardness as $CaCO_3$ (Ca, Mg, Fe, Zn, Mn)	531	567	
Potassium, *Dissolved*	4.49	5.55	5.55
Sodium, *Dissolved*	10.4	18.5	28.4
Calcium, *Dissolved*	140	136	94.6
Magnesium, *Dissolved*	42.8	48.4	32.2
Micrograms per liter			
Cadmium, *Dissolved* (.010 mg/l)	2	2	4
Chromium, *Dissolved* (.05 ")	5	3	4
Copper, *Dissolved* 1.0	1	< 1	3
Iron, *Dissolved*, mg/l .3	(7.69)	(16.4)	(360)
Lead, *Dissolved* (.05 ")	20	19	37
Manganese, *Dissolved* .05	230	(680)	(1340)
Mercury, *Dissolved* (.002 ")	.37	< .1	
Nickel, *Dissolved*	< 32	< 32	< 32
Zinc, *Dissolved* 5	697	4.80	(5.27) mg/l
Arsenic, *Dissolved* (.05 ")	1	2	2
Silver, *Dissolved* (.05 ")	.2	.1	.1

LSP-69/5-5-80

MISSOURI DEPARTMENT OF NATURAL RESOURCES
DIVISION OF ENVIRONMENTAL QUALITY
LABORATORY SERVICES PROGRAM

REPORT OF SAMPLE ANALYSIS
LANDFILL MONITORING PROJECT

NAME OF FACILITY *West Lakes Wells*

SAMPLES COLLECTED BY *Randy Crawford* DATE(S) *2-20-80*

NOTE:

SAMPLE DESCRIPTION	*Well #35*	*Well #34*	*Well #40*
DATE COLLECTED	*2-20-80*	*2-20-80*	*2-20-80*
SAMPLE NUMBER	*80-6609*	*80-6610*	*80-6611*
pH Units 6.5 - 8.5	7.0	6.9	7.1
Specific Cond. (umhos/cm @ 25° C)	1400	1200	1750
Milligrams per liter			
BOD	Lab Error	6	5
COD	81	15	< 5
NH_3 as N	1.06	.03	< .01
NO_3+NO_2 as N 10	< .05	< .05	.05
Total P	< .02	.05	.02
Total Sulfide	< 1.0	< 1	.34
TOC	52.0	10.7	16.0
Total Cyanide	12	< 10	< 10
Non-Filterable Residue (SS)	214	22.0	9.0
Filterable Residue (TDS) 500	(962)	(860)	(806)
Alkalinity as $CaCO_3$	690	444	502
Fluoride 1.4	.5	.19	.17
Chloride 250	32.91	39.74	57.51
Sulfate 250			
Hardness as $CaCO_3$ (Ca, Mg, Fe, Zn, Mn)	688	680	608
Potassium, *Dissolved*	6.81	6.33	6.91
Sodium, *Dissolved*	19.3	19.0	26.6
Calcium, *Dissolved*	178	158	165
Magnesium, *Dissolved*	51.2	54.8	43.4
Micrograms per liter			
Cadmium, *Dissolved* 0.010 mg/l	2	3	2
Chromium, *Dissolved* .05	< 1	3	2
Copper, *Dissolved* 1.0	1	1	1
Iron, *Dissolved*, mg/l 0.4	(14.8)	(8.18)	(1.29)
Lead, *Dissolved* .05	24	35	25
Manganese, *Dissolved* .05	(5330)	(2100)	(1900)
Mercury, *Dissolved* .002	.16	< .1	< .1
Nickel, *Dissolved*	< 32	< 32	< 32
Zinc, *Dissolved*, mg/l 5.0	3.46	(7.01)	(8.82)
Arsenic, *Dissolved* .05	27	< 5	2
Silver, *Dissolved* .05	.2	.3	.1

LSP-69/5-5-80

MISSOURI DEPARTMENT OF NATURAL RESOURCES
DIVISION OF ENVIRONMENTAL QUALITY
LABORATORY SERVICES PROGRAM

REPORT OF SAMPLE ANALYSIS
LANDFILL MONITORING PROJECT

NAME OF FACILITY *West Lakes Wells*

SAMPLES COLLECTED BY *Randy Crawford* DATE(S) *2-20-80*

NOTE:

SAMPLE DESCRIPTION		*Well #41*
DATE COLLECTED		*2-20-80*
SAMPLE NUMBER		*80-6612*
pH Units	6.5 - 8.5	7.4
Specific Cond. (umhos/cm @ 25° C)		4200
Milligrams per liter		
BOD		5
COD		22
NH_3 as N	10	.39
NO_3+NO_2 as N		6.8
Total P		.03
Total Sulfide		<1.0
TOC		10.3
Total Cyanide		<10
Non-Filterable Residue (SS)		7.0
Filterable Residue (TDS)	500	(3972)
Alkalinity as $CaCO_3$		906
Fluoride	2.4	.18
Chloride	250	(366)
Sulfate	250	
Hardness as $CaCO_3$ (Ca, Mg, Fe, Zn, Mn)		2068
Potassium, *Dissolved*		17.3
Sodium, *Dissolved*		445
Calcium, *Dissolved*		625
Magnesium, *Dissolved*		122
Micrograms per liter		
Cadmium, *Dissolved* (5000 ug/L)		6
Chromium, *Dissolved*	50	<1
Copper, *Dissolved*	1.0	6
Iron, *Dissolved*	.3	20
Lead, *Dissolved*	0.05	26
Manganese, *Dissolved*	50	(700)
Mercury, *Dissolved*	0.002	.27
Nickel, *Dissolved*		46
Zinc, *Dissolved*	5.0	11.0
Arsenic, *Dissolved*	50	1
Silver, *Dissolved*	0.05	<1

LSP-69/5-5-80

envirodyne
engineers
12161 Lackland Road
St. Louis, Missouri 63141
(314) 434-6560

Stamp

REPORT OF ANALYSIS

Environment • Energy • Transportation • Food Processing

SUBMITTED BY: Mr. Bill Canney
West Lake Quarry
Rt. 1, Box 206
Bridgeton, Missouri 63012

RECEIVED
DEC 26 1979
REITZ & JENS, INC.

DATE: 12/17/79
PROJECT NO. 1536-019

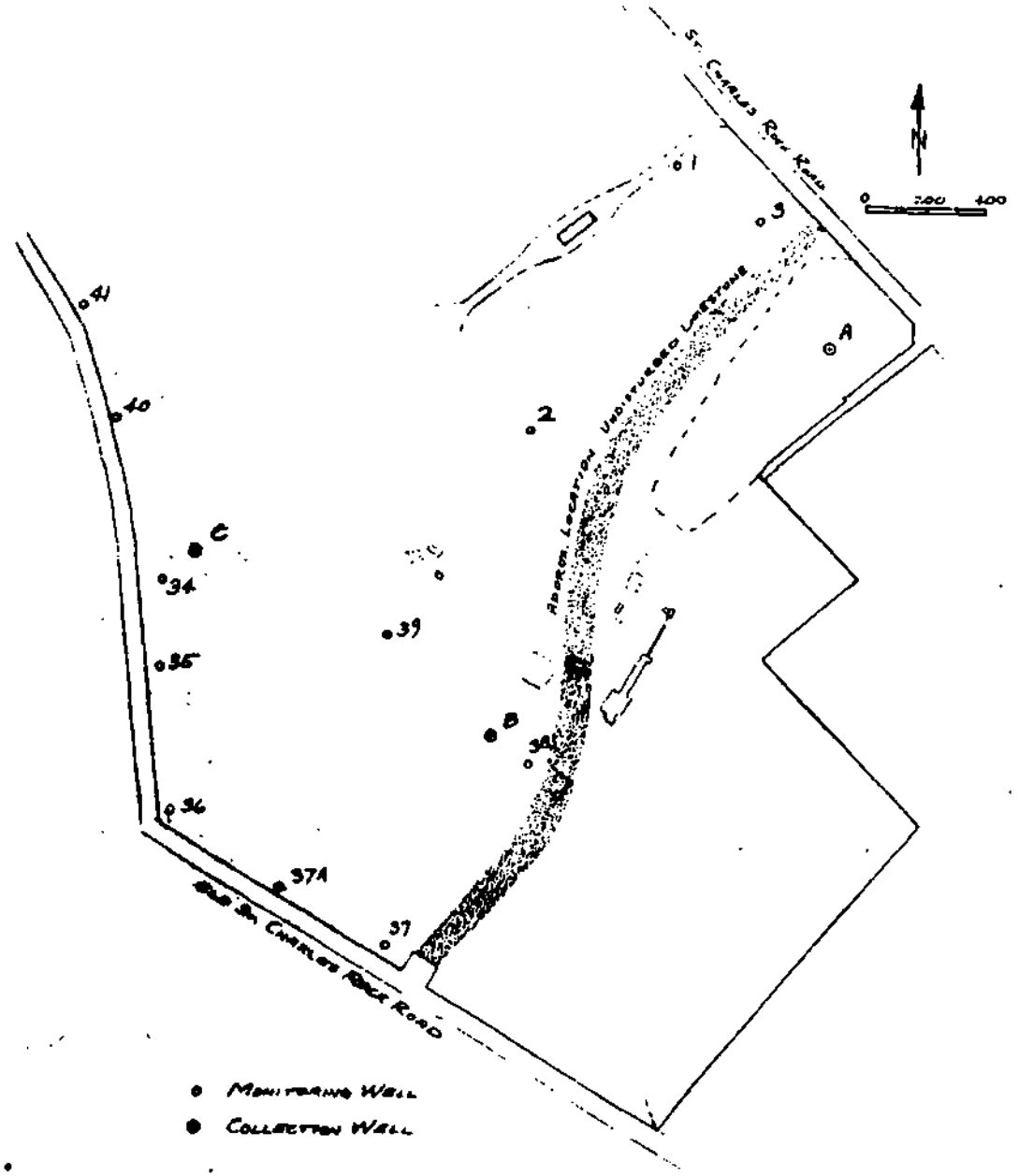
DATE RECEIVED: November 29, 1979
SAMPLE ANALYZED: 7 Water Samples
METHODS USED: Standard Methods, 14th Edition

RESULTS:

Site	pH (units) 6.5-6.9	COD (mg/l)	Conductivity (micromhos/cm)	Chloride 250 (mg/l)	Iron (mg/l)
34	6.6	36	850	53	0.96
35	6.9	71	900	49	5.56
37A	6.8	45	620	51	2.13
38	7.0	27	720	20	6.56
39	6.8	18	830	30	4.56
40	6.6	43	920	58	1.14
41	6.7	51	3400	478	2.07

ENVIRODYNE ENGINEERS

BY: Judy Stone



WEST LAKE LANDFILL INC.

WELL LOCATION MAP

ROBERTS & JENSEN INC. DEC. 1979

MISSOURI DEPARTMENT OF NATURAL RESOURCES
P.O. Box 1368 Jefferson City, Missouri 65102 (314) 751-3241

MEMORANDUM

Date: 9-5-80

To: Art Groner

From: Mike Dwall

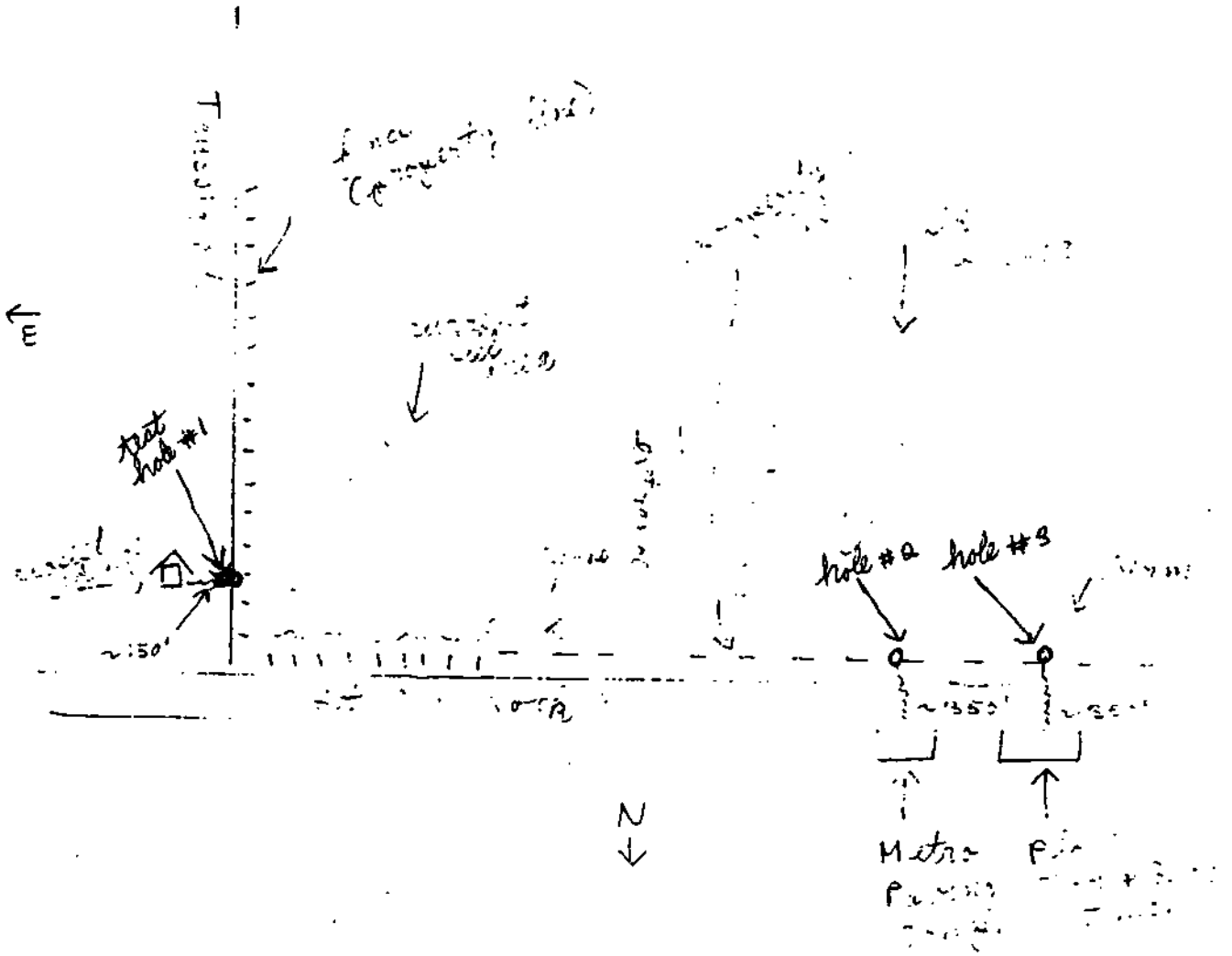
Subject: Weetlake SLF - explosive gas

Checked site 9-4-80 for gas. Can be summarized as follows:

- Tested several on-site buildings with explosimeter. These included small equipment storehouses for the quarry operation, as well as the housing for the leachate mechanical pre-treatment plant. Each of these structures had been closed-up for at least 24 hours, and probably much longer than that. I probed along the floor, in corners and at a heating duct in one case. No positive readings were registered on the meter.
- Surveyed property boundary for relationship to off-site structures. The boundaries of concern are along the north and east sides of the site, where there are some commercial buildings and a residence across the road from the landfill, well within the 1200' distance.
- 3 test holes were drilled and capped for at least one hour. Hole #1 was 2.5' deep, while the other 2 both bottomed at 3'.
- Again, no positive readings recorded.
- A check probe was taken at a covered leachate collection well, and a significant reading was →

(cont.)
obtained, verifying that the meter was working.

- Following map shows relative locations of the sampling points:



FORM EPA-2 (12-13-79)

Form Approved: O.M.B. No. 158-S79017

U.S. ENVIRONMENTAL PROTECTION AGENCY

OPEN DUMP INVENTORY REPORT

Section I – GENERAL INFORMATION

1. **Date of determination** *Enter month, day, and year*
   Month: 09 Day: 09 Year: 80

2a. **Is this an update of a previous form?** *Mark (X) one*
   1 ☐ Yes 2 ☒ No

2b. **Is this form being submitted to remove the facility from the open dump inventory?**
   1 ☐ Yes 2 ☒ No

3. **Facility Identification Number**
   State | Cnty/City | Place | Assigned Site No. | Assigned Facility No.

4. **EPA Surface Impoundment Assessment No.** *If applicable*
   State | Cnty/City | Place | Category | Site | Impoundment

5. **State Facility Identification Number** *If applicable*
   11890G

6. **Name of facility**
   WEST LAKE SANITARY LANDFILL, INC.

7. **Facility location**
   Street, road, or other location description
   13570 ST CHARLES ROCK RD
   City, town, or place: BRIDGETON
   State: MO
   ZIP code: 63044
   County name: ST LOUIS

8. **Coordinates of facility location**
   Latitude: Degrees | Minutes | Seconds
   Longitude: Degrees | Minutes | Seconds

9. **Other legal description** *If applicable*
   Range: 5E
   Township: 47N
   Section: U.S. SURVEY 131

10. **Land owner**
    Name: WEST LAKE LANDFILL, INC.
    Mailing address: 13570 ST CHARLES ROCK RD.
    City, town, or place: BRIDGETON
    State: MO
    ZIP code: 63044

11. **Operator**
    Name: SAME
    Mailing address:
    City, town, or place
    State
    ZIP code

EPA Form T8700-14 (3-80)

Section I – GENERAL INFORMATION – Continued

12. Type of facility
Mark (X) one

- [X] 1 Landfill
- [ ] 2 Surface impoundment
- [ ] 3 Land spreading
- [ ] 4 Other – *Explain* _____

13. Primary types of waste received

- [X] 1 Municipal solid waste
- [ ] 2 Domestic sewage sludge
- [ ] 3 Industrial solid waste
- [ ] 4 Agricultural solid waste
- [ ] 5 Mining solid waste
- [ ] 6 Other – *Explain* _____

Section II – NONCOMPLIANCE WITH FEDERAL CRITERIA

Indicate noncompliance with one or more of the following categories
Mark (X) each category for which a determination of noncompliance was made.

- [ ] 01 Floodplains
- [ ] 02 Endangered species
- [ ] 03 Surface water
- [X] 04 Ground water
- [ ] 05 Application to food-chain cropland
- [ ] 06 Disease
- [ ] 07 Air
- [ ] 08 Gases
- [ ] 09 Fires
- [ ] 10 Bird/aircraft hazard
- [ ] 11 Access

} Safety

Section III – RESPONSIBLE STATE OFFICIAL

Name			Telephone: Area code / Number
Agency			
Mailing address *(Number and street)*	City	State	ZIP code

Comments

EPA Form T8700-14 (3-80) REVERSE FORM EPA-2 (12-13-79)

Westlake sanitary landfill
St. Louis County

Chapter 7

AIR

Criterion Compliance Decision

☒ Complies

☐ Does Not Comply

1. Is open burning of solid wastes practiced at the facility?

☒ YES (Continue to 2)

- ☒ Records of previous open burning
- ☒ Visual observation of open burning
- ☒ Physical evidence of previous open burning

☐ NO (COMPLIES)

- ☐ Facility is a surface impoundment and does not open burn wastes
- ☐ Facility is a landspreading operation and does not open burn wastes
- ☐ Landfill which does not open burn

2. Are residential, commercial, institutional, or industrial solid wastes open burned at the facility?

☐ YES (Does not comply)

- ☐ Records of previous open burning
- ☐ Visual observation of open burning
- ☐ Physical evidence of previous open burning

☒ NO (Continue to 3)

3. Are landclearing debris, diseased trees, debris from emergency clean-up operations, silvicultural and agricultural wastes, or ordnance open burned at the facility?

☒ YES (Continue to 4)

- ☒ Records of previous burning
- ☒ Visual observation of open burning
- ☒ Physical evidence of previous open burning

☐ NO (COMPLIES)

4. Does the facility control air emissions in accordance with the State Implementation Plan (SIL) approved or promulgated by the administrator pursuant to Section 110 of the Clean Air Act?

☒ YES (COMPLIES)

- ☒ Opinion given by State agency managing the SIP
- ☒ Variances or permits under SIP examined
- ☒ Visual observations of open burning comply with SIP

☐ NO (Does not comply)

Chapter 2(a)

SAFETY - EXPLOSIVE GASES

Criterion Compliance Decision

☒ Complies

☐ Does Not Comply

1. Is methane generated?

☒ YES (Continue to 2)

- ☒ Landfill with organic waste
- ☐ Surface impoundment generating methane with a facility structure in contact with the liquid

☐ NO (COMPLIES)

- ☐ Landfill with no organic waste
- ☐ Landfill less than one year old
- ☐ Surface impoundment with no structures located adjacent to or above the disposal area
- ☐ Landspreading operations

2. Is methane prevented from migrating beyond the property boundary and accumulating in facility structures?

☐ YES (COMPLIES)

- ☐ Facility located on impervious rock
- ☐ Facility located on saturated soil or surrounded by surface water
- ☐ Facility with gas venting or recovery systems
- ☐ Facility with recent monitoring records showing no migration

☒ NO (Does not comply - continue to 3)

3. Ranking of facilities based on potential for methane hazard at the time of the Inventory.

☒ High priority (continue to 4)

- ☐ History of methane-related fires or explosions
- ☐ Monitoring results that indicate a migration problem
- ☐ Location in sand and gravel pits, and facility or off-site structures within 1200 feet
- ☐ Ranking from Table 2(a)-2

☐ Medium priority

- ☐ Vegetative stress within 1200 feet, but no facility or off-site structures
- ☐ Ranking from Table 2(a)-2

☐ Low priority

☐ No off-site structures within 1200 feet
☐ Ranking from Table 2 (a)-2

4. Do the concentrations of methane, as determined by monitoring, exceed 25 percent of the LEL in facility structures or the LEL at the property boundary?

☐ YES (Does not comply)

☒ NO (COMPLIES)

Chapter 2(b)

SAFETY - FIRES

Criterion Compliance Decision

☒ Complies

☐ Does Not Comply

1. Does the facility have the potential for fire occurrence?

   ☒ YES (Continue to 2)

   ☐ NO (COMPLIES)

      ☐ Facility receives only non-flammable, non-combustible wastes

2. Does the facility comply with Section 257.3-7, of the Air Criterion?

   ☒ YES (COMPLIES)

      ☒ The facility controls the occurrence of fires through compliance with Section 237.3-7

   ☐ NO (Continue to 3)

3. Is periodic cover material applied so as to reduce the risk of fire?

   ☒ YES (COMPLIES)

      ☒ The facility applies and compacts cover over combustible solid waste at the end of the operating day

      ☐ The facility applies and compacts cover at least once every 24 hours

      ☐ The facility incorporates all waste into the soil at the end of the operating day

   ☐ NO (Continue to 4)

4. Does the facility have adequate operating procedures to control fires should they occur?

   ☒ YES (COMPLIES)

      ☒ Landfill minimizes fire hazards when conducting open burning, such as:

         ☒ Supervision during burning

         ☐ Limiting access during burning

         ☐ Established arrangements with the local fire department

         ☐ Earth stockpiles near the burning area

         ☒ On-site availability of heavy equipment to extinguish fires

         ☐ Water supply under sufficient pressure is available

         ☒ Fire extinguishers are available

         ☐ Firebreaks or fire lanes are present

         ☒ CONTROLLED BURNING BY USE OF PIT AND AIR CURTAIN DESTRUCTOR

Chapter 2(b)

SAFETY - FIRES

(Continued)

☒ Landfill minimizes fire hazards by proper operating procedures:

- ☒ Previous inspections and reports indicate no problem
- ☒ Permit conditions are being followed (for a fire protection plan)
- ☒ No complaints have been made
- ☐ Records of local fire department indicate no citations have been given
- ☒ High frequency of spreading and compacting all combustible wastes
- ☐ Waste materials with high fire potential are unloaded a safe distance from the working face
- ☒ Unloading of wastes adequately supervised
- ☒ Hot or burning loads are extinguished with water or soil before incorporating into the fill
- ☒ Earth stockpiles are located near the working face
- ☐ Water supply under sufficient pressure is available at the working face
- ☒ Fire extinguishers present on all equipment and buildings
- ☐ Arrangements are established with local fire fighting departments
- ☒ On-site availability of heavy equipment to extinguish fires
- ☐ Firebreaks, fire lanes are present

☐ Surface impoundment minimizes fire hazards by proper handling and storage of liquid wastes:

- ☐ Wastes are mixed to reduce flammability
- ☐ Suitable fire extinguishing equipment is present
- ☐ Established arrangements with local fire department or trained on-site personnel
- ☐ Wastes can be rapidly drained or waste flow can be controlled
- ☐ Waste can be isolated
- ☐ Impoundment is readily accessible by fire-fighting equipment

☐ Landspreading facility minimizes fire hazards by proper operating procedures:

- ☐ Suitable fire-fighting equipment is available
- ☐ Established arrangements with local fire department
- ☐ Facility is readily accessible by fire-fighting equipment

☐ NO (Does not comply)

Chapter 2(c)

SAFETY -
BIRD HAZARDS TO AIRCRAFT

Criterion Compliance Decision

☒ Complies

☐ Does Not Comply

1. Is the disposal facility within the specified distances of a public-use airport?

   ☐ YES (Continue to 2)

   ☐ 10,000 feet from any airport runway used by turbojet aircraft
   ☐ 5,000 feet from any airport runway used by piston-type aircraft

   ☒ NO (COMPLIES)

2. Does the facility receive putrescible waste?

   ☐ YES (Continue to 3)

   ☐ Food waste
   ☐ Sewage sludge, septic tank pumpings
   ☐ Animal manures
   ☐ Animal carcasses
   ☐ Others

   ☐ NO (COMPLIES)

3. Does the facility pose a bird hazard to aircraft?

   ☐ YES (Does not comply)

   ☐ Bird populations of the facility are greater than natural populations in the area
   ☐ Facility attracts birds
   ☐ There is a bird hazard at the airport from areas outside the airport
   ☐ Flight patterns of the birds show that birds do fly from the disposal facility to the airport area

   ☐ NO (COMPLIES)

   ☐ Bird populations of the facility are less than or equal to the natural populations in the area
   ☐ Facility does not attract birds
   ☐ Bird attraction is due to the airport facility
   ☐ Flight patterns of birds show that they do not fly from the disposal facility to the airport

Chapter 2(d)

SAFETY - ACCESS

Criterion Compliance Decision

☒ Complies

☐ Does Not Comply

1. Is access of unauthorized persons into the facility controlled?

☒ YES (COMPLIES)

Natural controls:

☐ Trees and hedges
☐ Berms and ditches
☐ Cliffs and ravines
☐ Remoteness

Artificial controls:

☒ Gates
☒ Fences

☐ NO (Continue to 2)

2. Are authorized persons controlled within the facility so as to not expose them to potential health and safety hazards?

☒ YES (COMPLIES)

☒ Supervision of the unloading area
☒ Adequate lighting
☐ Posting information and direction signs
☒ Prohibition of scavenging
☒ Control of salvaging
☒ Trafficable roadways
☒ Alternate discharge point

☐ NO (Does not comply)

Chapter 3

SURFACE WATER

Criterion Compliance Decision

☒ Complies

☐ Does Not Comply

1. Is there a point source discharge of pollutants to waters of the United States?

☐ YES (Continue to 2)

- ☐ Facility has a Section 402 (NPDES) permit
- ☐ Landfill with a discharge from a leachate collection system
- ☐ Landfill with a discharge from an on-site leachate treatment system
- ☐ Landfill with a direct discharge of solid waste into waters of the U.S.
- ☐ Surface impoundment with a discharge from a pipe or outfall
- ☐ Surface impoundment with a discharge from an eroded channel
- ☐ Surface impoundment with a discharge from a spillway structure
- ☐ Surface impoundment located in waters of the U.S.
- ☐ Landspreading operations with a discharge from an outfall pipe, or channel that drains the landspreading area where the waste is not incorporated into the soil
- ☐ Landspreading operations located in waters of the U.S. where waste is not applied for enhancement of vegetative growth

☒ NO (Go to 2)

2. Does the facility violate requirements for NPDES permits established pursuant to Section 402 of the Clean Water Act?

☐ YES (Does not comply - continue to 3)

- ☐ Facility has a 402 permit, but is in violation of the permit
- ☐ Facility has not applied for a 402 permit

☒ NO (Continue to 3)

- ☐ Facility operates according to 402 permit requirements
- ☐ Facility has applied for a 402 permit
- ☒ LANDFILL HAS LEACHATE COLLECTION W/ NO DISCHARGE

3. Is there a discharge of dredged material or fill material to waters of the United States?

☐ YES (Continue to 4)

☐ NO (Go to 5)

Chapter 3

SURFACE WATER

(Continued)

4. Does the facility violate requirements established pursuant to Section 404 of the Clean Water Act?

☐ YES (Does not comply - continue to 5)

☐ 404 permit, but is in violation of that permit
☐ Facility has not applied for a 404 permit

☐ NO (Continue to 5)

☐ Facility operates in compliance with its 404 permit
☐ Facility has applied for a 404 permit

5. Is there a non-point source discharge from the facility?

☒ YES (Continue to 6)

☐ Surface impoundment with spillover, overtopping, or leakage
☒ Other LANDFILL WITH SURFACE RUNOFF

☐ NO (Complies)

☐ Landfill or landspreading facility that totally contains runoff or other water
☐ Other

6. Does that non-point source pollute waters of the U.S. that violates applicable legal requirements implementing an areawide or Statewide water quality management plan that has been developed and approved by the Administrator under Section 208 of the Clean Water Act, as amended?

YES (Does Not Comply)

☒ NO (Complies)

Facility not in an area with an approved 208 plan

Facility in an area with an approved 208 plan and complies with all applicable requirements

☒ No 208 requirements have been placed on the facility

Another way of looking at question 6 is to divide it up into the following sub-questions -

a. Is the facility in an area with a 208 plan?

Yes - go to b.

No - complies

b. If the facility is in an area with a 208 plan, does that plan place any requirements on the facility?

Yes - go to c.

No - complies

c. If the facility does have requirements placed on it by a 208 plan, does it violate those requirements?

Yes - does not comply

No - complies

Chapter 4

GROUND WATER

Criterion Compliance Decision

☐ Complies

☒ Does Not Comply

1. Does ground water contain more than 10,000 mg/l TDS, and is it not being used as a human drinking water source?

☐ YES (COMPLIES)

- ☐ Ground water is not present beneath the site
- ☐ Ground water has more than 10,000 mg/l TDS, TDS = _____ and is not used as a human drinking water source
- ☐ Ground water is not present in usable quantities beneath the site

☒ NO (Continue to 2)

- ☒ Ground water has less than 10,000 mg/l TDS
- ☐ Ground water is being used as a drinking water source

2. Rank facility according to its contamination potential.

Landfills

- ☐ Facility overlies sole source aquifer (high priority)
- ☐ Facility has a history of leachate problems (high priority)
- ☐ Ranking from Table 4-2
  - Saturated zone permeability _____ cm/sec
  - Unsaturated zone thickness _____ m
  - Unsaturated zone permeability _____ cm/sec
- ☐ Facility is in an area where precipitation is exceeded by evaporation plus transpiration (low priority)

☒ High priority

☐ Medium priority

☐ Low priority

Surface Impoundments

Ranking from Table 4-3

Saturated zone rating _____

Unsaturated zone rating _____

☐ High priority

☐ Medium priority

☐ Low priority

Chapter 4

GROUND WATER

Continued

Landspreading Facilities

☐ Sludge nitrogen is being applied in excess of crop or vegetative demand (high priority)
☐ Ranking from Table 4-2 for industrial waste facilities

☐ High priority
☐ Medium priority
☐ Low priority

3. Has an underground drinking water source been contaminated by the facility beyond the solid waste (or alternate boundary)?

☒ YES (Does not comply)

☒ Monitoring shows contamination of a drinking water source
Contaminating substances and concentrations MANGANESE, TDS, CHLORIDE

☐ NO (COMPLIES)

☐ Facility does not overlie a drinking water source
☐ Monitoring shows no contamination beyond the solid waste (or alternate boundary)

Chapter 5

ENDANGERED SPECIES

Criterion Compliance Decision

☒ Complies

☐ Does Not Comply

1. Is the facility within a critical habitat or the portion of the range where endangered or threatened for an endangered or threatened species as listed pursuant to the Endangered Species Act of 1973 (16 U.S.C. 1530 et seq. as amended) in 50 CFR Part 17?

   ☐ YES (Continue to 2)

   ☒ NO (COMPLIES)

2. Has there been an assessment which enables the determination that the facility neither results in the destruction or adverse modification of the critical habitat of endangered or threatened species, nor causes or contributes to the taking of any endangered or threatened species of plants, fish, or wildlife?

   ☐ YES (COMPLIES)

   - ☐ Facility has passed assessment made by State, according to facility records
   - ☐ Facility has passed assessment made by OES or other Federal agency
   - ☐ Facility has an individual 404 Permit with an assessment section
   - ☐ Facility has passed evaluation as a result of settlement made to prevent adverse impact
   - ☐ Nearby assessments have indicated comparable situation at facility is not a problem

   ☐ NO (Continue to 3)

3. Does the facility result in the destruction or adverse modification of a critical habitat?

   Factors considered:

   Type of critical habitat _____

   Size of critical habitat _____

   Sensitivity of critical habitat to adverse impacts _____

   _____

   Critical habitat species characteristics _____

   _____

   Proximity of facility to critical habitat _____

   Facility design and operational characteristics _____

   _____

☐ YES (Does not comply - Continue to 4)

☐ NO (Continue to 4)

4. Does the facility cause or contribute to the taking of any endangered or threatened species of plants, fish, or wildlife?

Factors considered:
Type of species and species habitat _____
Species characteristics _____
_____
Sensitivity of species and species habitat to adverse impacts _____
_____
Proximity of facility _____
Facility size, design, and operational characteristics _____
_____
_____

Adverse impacts considered:
Harassing, harming, pursuing, hunting, wounding, killing, trapping, capturing, or collecting species (direct violation of ESA, does not comply) _____
Adverse modification or loss of habitat (including air & water pollution) _____
_____
Infringement on breeding, nesting, and feeding activities _____
_____
Interference with species movement _____
_____

☐ YES (Does not comply)

☐ NO (COMPLIES)

Chapter 6(a)

DISEASE: VECTORS

Criterion Compliance Decision

☒ Complies

☐ Does Not Comply

1. Does the facility minimize the on-site population of disease vectors through the periodic application of cover material or other techniques as appropriate so as to protect public health?

☒ YES (COMPLIES)

Rats and Flies

Landfills

☒ Facility applies daily cover

☐ Facility is not one which applies daily cover

Type of facility _____

Reason why daily cover is not necessary _____

_____

Schedule for application of cover _____

☐ Facility practices other techniques

- Repellants
- Insecticides or rodenticides
- Composting or processing
- Predatory or reproductive control

Landspreading

☐ Is waste material putrescible?

☐ Is the waste material incorporated into the soil?

Mosquitos

Landfills and Landspreading

☐ No visual observation of mosquitoes, mosquito larvae, or flies

☐ Waste is incorporated

☐ Waste is properly treated prior to application

☐ No presence or potential for standing water

☒ Records of inspections show no evidence of disease vector problems

Chapter 6(a)

DISEASE: VECTORS

Criterion Compliance Decision

(continued)

Mosquitos (continued)

Surface Impoundments

- ☐ Facility provides environmental control techniques
- ☐ Varying water level
- ☐ Agitation of water
- ☐ Removal of vegetation
- ☐ Presence of aquatic life
- ☐ No visual observation of mosquito larvae
- ☐ Effective insecticide program

☐ NO (Does not comply)

Chapter 6(b)

SEWAGE SLUDGE AND SEPTIC TANK PUMPINGS

Criterion Compliance Decision

☒ Complies

☐ Does Not Comply

1. Are sewage sludge or septic tank pumpings applied to the surface of the land or incorporated into the soil?

   ☐ YES (Continue to 2)

   ☒ NO (COMPLIES)

   ☒ Facility is a trenching or burial operation

2. Are crops planted for human consumption within 18 months after application of waste?

   ☐ YES (Continue to 3)

   ☐ Crops grown at time of inventory are for human consumption
   ☐ Information from operating plan
   ☐ Past usage or crops in the vicinity
   ☐ Information from facility owner/operator

   ☐ NO (Continue to 5)

3. Does the waste contact the food portion of the crop?

   ☐ YES (Continue to 4)

   ☐ Direct application or rainfall splash
   ☐ Crops with food portion close to the ground
   ☐ Taller crops that receive application early in growing stage

   ☐ NO (Continue to 6)

4. Is the waste treated by a process to further reduce pathogens?

   ☐ YES (COMPLIES)

   ☐ Verification of acceptable process from appropriate source
   Source used _____

   ☐ NO (Does not comply - continue to 5)

   ☐ Verification cannot be made

Chapter 6(b)

SEWAGE SLUDGE AND SEPTIC TANK PUMPINGS

(Continued)

5. Is sewage sludge the waste material being applied?

☐ YES (Continue to 6)

☐ NO (Continue to 7)

6. Has the sludge been treated by a process to significantly reduce pathogens and is access controlled - 12 months for the public, and 1 month for grazing animals whose products are consumed by man?

☐ YES (Both reduction process and access control must be checked) (COMPLIES)

- ☐ Verification of acceptable process from appropriate source
  Source used _____
- ☐ Appropriate access controls are used in public access areas
- ☐ Facility is on private farmland not subject to frequent trespass

☐ NO (Does not comply)

- ☐ Verification cannot be made
- ☐ No access controls are used
- ☐ Facility is on private farmland subject to frequent trespass, and access is not controlled

7. Has the waste been treated by a process to significantly reduce pathogens or is access prevented - 12 months for the public and 1 month for grazing animals whose products are consumed by man?

☐ YES (COMPLIES)

- ☐ Verification of acceptable process from appropriate source
  Source used _____
- ☐ Access controlled

☐ NO (Does not comply)

Chapter 7

APPLICATION TO LAND USED FOR THE PRODUCTION OF FOOD CHAIN CROPS

Criterion Compliance Decision

☒ Complies

☐ Does Not Comply

1. Is solid waste applied within one meter of the surface of land used for food chain crops?

   ☐ YES (Continue to 2)

   ☒ NO (COMPLIES)

   - ☐ The land is not used for the production of food chain crops
   - ☐ Facility is a surface impoundment
   - ☒ Facility is a landfill

2. Is there an operating plan which demonstrates how the crop is to be distributed to preclude ingestion by humans and provides safeguards to prevent possible health hazards resulting from alternative future uses of the land?

   ☐ YES (Continue to 3)

   - ☐ Crop distribution is controlled to prevent ingestion by humans
   - ☐ Operating plan describes safeguards against possible entry of cadmium into food chain

     Description_____

   ☐ NO (Go to 5)

3. Does a notice appear in the land records notifying any future owners that the property has received solid waste at high cadmium application rates and that food chain crops should not be grown, due to a possible health hazard?

   ☐ YES (Continue to 4)

   ☐ NO (Does not comply - continue to 4)

Chapter 7

APPLICATION TO LAND USED FOR THE PRODUCTION OF FOOD CHAIN CROPS

(Continued)

4. Is the solid waste and soil mixture at pH 6.5 or greater at the time of solid waste application or at the time the crop is planted, whichever occurs later?

☐ YES (COMPLIES)

☐ NO (Does not comply - continue to 5)

5. Is the background soil pH greater than 6.5 or are there adequate safeguards to assure that the soil pH will be maintained at 6.5 or higher whenever food chain crops are grown?

☐ YES (Continue to 6)

- ☐ SCS maps or reports, or local agricultural extension service
- ☐ Laboratory analysis
- ☐ pH of soil is controlled whenever food chain crops are grown.

☐ NO (Go to 7)

6. Does the soil cadmium concentration exceed 5 kg/ha with a CEC of less than 5, or 10 kg/ha with a CEC of 5 to 15, or 20 kg/ha with a CEC greater than 15?

☐ YES (Does not comply)

☐ NO (COMPLIES - Go to 8)

7. Has the cumulative application of cadmium exceeded 5 kg/ha?

- ☐ kg/ha cadmium in soil _____
- ☐ kg/ha cumulative application _____

☐ YES (Does not comply - continue to 8)

☐ NO (COMPLIES - continue to 8)

8. Is the annual application rate of cadmium in excess of 2 kg/ha (1.25 kg/ha after 1/1/84 and 0.5 kg/ha after 1/1/87)?

☐ kg/ha/yr cadmium application rate _____ (see Figure 7-3)

☐ YES (Does not comply - continue to 9)

☐ NO (Continue to 9)

Chapter 7

APPLICATION TO LAND USED FOR THE PRODUCTION OF FOOD CHAIN CROPS

(Continued)

9. If waste is applied to land used for the production of tobacco, leafy vegetables or root crops for human consumption, is the cadmium loading rate less than 0.5 kg/ha/year?

☐ Crop grown_____.

☐ YES (Continue to 10)

☐ Land is not used for production of these crops
☐ Cadmium loading is less than 0.5 kg/ha/yr

☐ NO (Does not comply - continue to 10)

10. Is the cadmium concentration in the waste less than 2 mg/kg?

☐ mg/kg - cadmium concentration_____

☐ YES (COMPLIES - continue to 11)

☐ NO (Continue to 11)

11. Is the pH of the soil/waste mixture 6.5 or greater at the time of application?

☐ YES (COMPLIES- continue to 12)

☐ NO (Does not comply - continue to 12)

12. Is the waste incorporated into the soil?

YES (COMPLIES)

NO (Continue to 13)

13. Does the waste contain concentrations of PCB's equal to or greater than 10 mg/kg?

☐ YES (Continue to 14)

☐ Analysis indicates 10 mg/kg or more

☐ NO (COMPLIES)

☐ Analysis indicates less than 10 mg/kg
☐ No known significant source of PCB's

14. Is the milk or animal feed monitored to assure that the PCB concentrations are less than 1.5 mg/kg (fat basis) in milk, or less than 0.2 mg/kg in animal feed?

☐ YES (COMPLIES)

☐ NO (Does not comply)

Chapter 8

FLOODPLAINS

Criterion Compliance Decision

☒ Complies

☐ Does Not Comply

1. Is the solid waste applied to the land surface and incorporated into the soil for the purpose of beneficial utilization as a soil conditioner or fertilizer?

☐ YES (Complies)

- ☐ Waste incorporated into the soil in accordance with requirements of Section 257.3-5
- ☐ Waste used as a soil conditioner or fertilizer
- ☐ Disposal area being used (or will be used next season) for vegetation

☒ NO (Continue to 2)

2. Is the facility located in the 100-year floodplain?

☐ YES (Continue to 3)

- ☐ Stated in permit or operation applications
- ☐ State floodplain designation
- ☐ Federal floodplain designation: agency _____
- ☐ Interpolation between two known points in the 100-year floodplain
- ☐ Computations of flood flow and flood level

☒ NO (Complies)

3. Does the facility restrict the flow of the base flood or reduce the temporary water storage capacity so as to pose a hazard to human life, wildlife, or land or water resources?

Special cases:

- ☐ Facility located in a state where equivalent review or permit procedures have considered flood alteration impacts
- ☐ Facility has a 404 permit with an equivalent flood hazard assessment section and is in compliance with the permit
- ☐ Facility has filled floodplain or is diked up to or above base flood level
- ☐ Facility is below floodplain grade

- ☐ Facility located in a floodplain where the channel is diked to contain the base flood
- ☐ Facility increases base flood level more than 1.0 foot

Priority of facility:

- ☐ Regulatory floodway area - priority 1
- ☐ High flood hazard potential area (Table 1-1) - priority 2
- ☐ Low flood hazard potential area (Table 1-1) - priority 3

Factors considered in flood hazard potential assessment:

Base Flood characteristics: _____
Floodplain topography: _____
Floodplain hydrogeology: _____
Facility characteristics: _____
Natural resources in and adjacent to the floodplain: _____
_____
Land use in and adjacent to the floodplain: _____
_____

☐ YES (Does not comply - Continue to 4)

☐ NO (Continue to 4)

4. Is the facility protected from washout by the base flood so as not to pose a hazard to human life, wildlife, or land or water resources?

Factors considered for washout protection:

Types and Efficiency Protection:

- ☐ Dike or levee _____
- ☐ Berm _____
- ☐ Flexible linings _____
- ☐ Vegetative cover _____
- ☐ Riprap _____
- ☐ Diversion of surface flow _____
- ☐ Change in soil matrix _____
- ☐ Other _____
- ☐ None _____
- ☐ Flood flow velocity _____

☐ YES (Complies)

- ☐ State washout assessment or 404 permit
- ☐ Site analysis of washout protection

☐ NO (Does not comply)

- ☐ Washout by flood of lesser magnitude than the 100-year flood
- ☐ Site analysis of washout protection

? OPEN DUMP.

West Lake Sanitary Landfill.

1) Monitoring wells indicate groundwater contamination - need further evaluation
High [illegible] 5.

2) General NPDES permit will be applicable.

3) Fails ground water criteria?